Lampiran 3. Kode Program ESP32

```
1.  #include "DHT.h" //include library DHT
2.  #include "WiFi.h" //include library untuk jaringan wifi
3.  #include "HTTPClient.h"
4.  #include <Stepper.h> //Stepper Library
5.  #include <ESP32Servo.h>
6.
7.  //definisikan pin untuk DHT
8.  #define DHTPIN 26 //masuk pin dht
9.  #define DHTTYPE DHT22
10. #define relay 32 //input  pin ungu, hijau minus, biru plus
11. //kaki modul stepper
12. #define IN1 19
13. #define IN2 18
14. #define IN3 5
15. #define IN4 17
16.
17. #define hujan 35
18. #define hujan1 36
19. #define kecerahan 33
20.
21. //objek untuk DHT
22. DHT dht(DHTPIN, DHTTYPE);
23.
24. Servo myServo;
25. Servo myServo1;
26. const int servoPin = 14;
27. const int servo1Pin = 16;
28.
29. const int stepsPerRevolution = 500; //banyaknya putaran
     stepper
30. Stepper myStepper(stepsPerRevolution, IN1, IN3, IN2, IN4);
     //Motor Stepper
31.
32. //siapkan variabel untuk wifi dan password
33. const char* ssid = "KingCrezz";
34. const char* pass = "08082000";
35.
36. //siapkan variabel host/server yang menampung aplikasi web
     dan database
37. const char* host = "laundryciplak.000webhostapp.com";
38.
39. void setup() {
40.   // put your setup code here, to run once:
41.   Serial.begin(115200);//aktifkan serial
42.   //aktifkan sensor DHT
43.   dht.begin();
44.   pinMode(relay, OUTPUT);
45.   myStepper.setSpeed(50); //kecepatan putar motor stepper
46.   myServo.attach(servoPin);
47.   myServo1.attach(servo1Pin);
48.   //koneksi ke wifi
49.   WiFi.begin(ssid, pass);
50.   Serial.println("Connecting....");
51.
52.   while(WiFi.status() != WL_CONNECTED)
53.   {
54.     Serial.print(".......");
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55.     delay(500);
56.   }
57.
58.   //apabila berhasil terkoneksi
59.   Serial.println("Connected");
60. }
61.
62. void loop() {
63.   //put your main code here, to run repeatedly:
64.   //baca nilai suhu dan kelembaban
65.   float suhu = dht.readTemperature();
66.   int kelembaban = dht.readHumidity();
67.   int ldr = analogRead(kecerahan);
68.   int data_air = analogRead(hujan);
69.   int baju = analogRead(hujan1);
70.   //tampilkan nilai sensor ke serial monitor
71.   Serial.println("------------------------");
72.   Serial.println("Suhu : " + String(suhu) + "℃");
73.   Serial.println("Kelembaban : " + String(kelembaban) +
     "%");
74.   Serial.println("Cahaya : " + String(ldr));
75.   Serial.println("Air : " + String(data_air));
76.   Serial.println("Baju : " + String(baju));
77.
78.   if(baju < 4040) {
79.     myServo.write(0);
80.     Serial.println("Baju Sudah Kering");
81.     delay(1000);
82.   } else {
83.     myServo.write(90);
84.     Serial.println("Baju Masih Basah");
85.     delay(5000);
86.   }
87.
88.   //Stepper
89.   Serial.println("Berputar");
90.   myStepper.step(stepsPerRevolution);
91.
92.   //kirim data ke server
93.   WiFiClient client;
94.   //inisialisasi port web server 80
95.
96.   //kondisi pasti terkoneksi
97.   //kirim data sensor ke database web
98.   String Link;
99.   HTTPClient http;
100.
101.    Link = "http://" +String(host) +
     "/halaman/kirimdata.php?suhu=" +String(suhu) +
     "&kelembaban=" +String(kelembaban) + "&ldr=" +String(ldr) +
     "&hujan=" +String(data_air);
102.
103.   if (data_air <= 4000) {
104.     digitalWrite(relay, HIGH);
105.     myServo1.write(0);
106.     Serial.println("HUJAN !");
107.   }
108.   else {
109.     digitalWrite(relay, LOW);
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110.      myServo1.write(45);
111.      Serial.println("Tidak Hujan");
112.    }
113.
114. //eksekusi alamat link
115.    http.begin(Link);
116.    http.GET();
117.    //baca respon dari php setelah berhasil kirim nilai
     sensor
118.    String respon = http.getString();
119.    Serial.println(respon);
120.    http.end();
121.
122.    delay(1000);
123. }
```